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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,404	11/14/2001	Takeshi Kamio	SH-0027US	7029
21254	7590	01/12/2005	EXAMINER	
MCGINN & GIBB, PLLC 8321 OLD COURTHOUSE ROAD SUITE 200 VIENNA, VA 22182-3817			HOFFMANN, JOHN M	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,404

Applicant(s)

KAMIO ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10-15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Objections

Claims 4-6 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 1 requires the use of a predetermined range. But claim 4 suggests a step of determining the range. Claim 4 takes the scope to a mutually exclusive range – from that from that of claim 1. Something cannot be both determined and predetermined.

Claim 6 has substantially the same problem.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 requires that the range is predetermined, but claims 4 and 6 require that it is determined. Examiner does not understand what these claims requires – because they are contradictory things. Alternatively, it is unclear relative to what point in time the range is predetermined.

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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Claim 1, and 3- 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa 5306322.

The figures show a ring heater 24, through which the porous-glass material (21) passes. It would have been obvious to prepare the heater, such as by buying it, placing it in the furnace, or supplying power so as to heat it.

As to the step of selecting, it is deemed that before one places it in the furnace, it must be (or must have been) selected. Alternatively, a step of selecting is a mental step with no manipulative steps –one watching the Ishikawa process cannot tell if the preform was actually “selected”; in other words, a mental step of selecting does not patentably define over a process where a preform is merely used but not mentally selected. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Similarly, for determining a range – determining can be a computational step or a mental step. A mental step does not have any manipulative component to it.

For the heating step, see col. 4, lines 16-20 and col. 3, lines 2-6.

As to the range of diameters. It would have been obvious to use as big or as small preform as desired – depending upon the amount of fiber that one desires. Further, one would not want to have a ratio to be very small – because then one would be wasting heat by heating up the gas between the muffle tube 23 and the preform.

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The ratio has to be less than 1.0. And one would not want it too close to 1.0 because it would be too tight of a fit.

As to the core: it is deemed that a fair reading of the patent discloses the use of the core – because fibers need a core to effectively conduct the light in the final product. Examiner takes official notice that fibers with a core more effectively conduct light. It would have been obvious to use a core material in the porous preform so as to most effectively contain the light in the final fiber.

From MPEP 2144.04

A. Changes in Size/Proportion

In re Rose , 220 F.2d 459, 105 USPQ 237 (CCPA 1955) (Claims directed to a lumber package "of appreciable size and weight requiring handling by a lift truck" where held unpatentable over prior art lumber packages which could be lifted by hand because limitations relating to the size of the package were not sufficient to patentably distinguish over the prior art.); In re Rinehart, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976) ("mere scaling up of a prior art process capable of being scaled up, if such were the case, would not establish patentability in a claim to an old process so scaled." 531 F.2d at 1053, 189 USPQ at 148.).

In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Alternatively, looking at col. 7, line 66 and col. 9, line 55. $d/D = 0.93$.

However, the claimed value of 0.9 is only one significant digit. 0.93 written with only one significant digit is 0.9. Further the ring ID is larger than the muffle tube ID. So, d/D in Ishikawa has to be less than 0.93 (that is less than 0.9). However, d/D in Ishikawa could still be less than 0.5. It would have been obvious to make d/D as large as

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possible (and yet less than 0.93 (i.e. 0.9)) because the bigger d, the larger the preform, and thus the more fiber that one can make.

Claim 3 is met for the reasons given above.

Claims 4 - 5, it would have been obvious to make the preform as large or as small as desired. It is deemed that a step of determining is not a manipulative step that defines over the prior art. It is a mental step.

Claim 6: It appears that the claim does not actually require the creation of the 0.4% body. Rather it merely sets out how the range is determined. Regardless, it would have been obvious to make the soot preform so as to make the final product as perfectly cylindrical as possible. Any argument that one could not make a preform with a 0.4% eccentricity value, may be used in a non-enablement rejection.

Claim 7, the muffle tube is the part of the furnace that is surrounded by the ring heater.

Claims 8, 10-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa 5306322 in view of Antos 6289698.

See how Ishikawa is applied above. Claim 8 is substantially the same as claim 1, except that claim 1 also has an elongating step that Ishikawa does not teach.

However, it is known to stretch preforms, so as to reduce bubbles. It would have been obvious to stretch the consolidated Ishikawa preform so as to remove any remaining

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bubbles. Antos is cited as evidence that it is known to stretch preforms to reduce bubbles (col. 4, lines 5-34).

Claim 15 is similarly met.

Claims 10-14 and 17 are met for the reasons given above: they are substantially the same as the other depended claims.

Response to Arguments

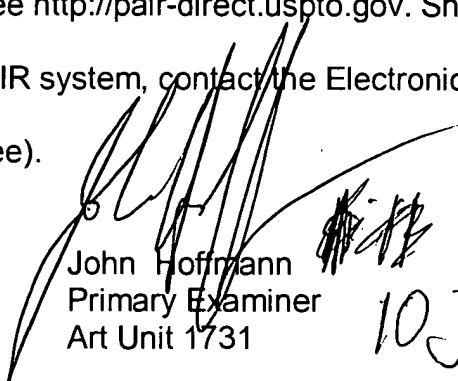
Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Hoffmann
Primary Examiner
Art Unit 1731


10 Jan 05

jmh